U.S. Fish & Wildlife Service

Accomplishment Report

The **Alpena Fishery Resources Office (Alpena FRO)** is located in Alpena, Michigan and works to meet U.S. Fish and Wildlife Service Fishery and Ecosystem goals within Lake Huron, Western Lake Erie, and connecting waters of the St. Marys River, St. Clair River, and Detroit River. Activities include Aquatic Species Conservation and Management, Aquatic Habitat Conservation and Management, Cooperation with Native Americans, Leadership in Science and Technology, Partnerships and Accountability, Public Use, and Workforce Management – all of which are conducted in alignment with the Service Fisheries Program Vision for the Future. The station is one of many field offices located within Region 3, the Great Lakes Big Rivers Region.

Aquatic Species Conservation and Management

Biologists from Multiple Agencies Meet to Discuss Mussel Recovery Efforts in the Huron Erie Corridor at Walpole Island

Submitted by James Boase
Fishery Biologist

Biologists from the Michigan Department of Natural Resources (MDNR), Walpole Island First Nation (WIFN), USGS Great Lakes Science Center (GLSC), DTE Energy, Genoa National Fish Hatchery (GNFH), and Alpena FRO met on September 1, 2006 at the Walpole Island Heritage Center. The purpose of the gathering was to bring together biologists that have been working on Great Lakes mussel issues especially those affecting the Huron Erie Corridor (HEC) and to provide a forum to discuss recent finding and provide direction for future rehabilitation efforts. Resource managers from WIFN have been leading the efforts in

establishing refuge areas within the St. Clair River Delta with the focus of maintaining and protecting the remaining native mussel populations on the Delta. The research leading up to the establishment of the refuge areas was largely a part of the cooperation between WIFN, Environment Canada, GLSC, and DTE Energy. More recently the USFWS and MDNR have joined in on these efforts.

At the meeting Mussel Biologist Tony Brady from the GNFH presented recent innovative propagation techniques that have been successfully used in supplemental stocking or the reintroduction of federally listed mussels back into tributaries of the Mississippi River. Similar to the populations on the Mississippi River System the populations on the St. Clair Delta have been declining or have been extirpated from many areas due to the negative effects of the exotic zebra mussel. Since the introduction of the exotic zebra mussel in the 1980's native mussels have been steadily declining or have been eliminated from most areas of the Great Lakes. Although zebra mussels do not directly parasitize native mussels they do attach themselves in large numbers to the shells of the native mussels thereby preventing the mussels from foraging, reproducing and dispersing their progeny.

Historical research indicates that the highest densities and greatest diversity of native mussels were found in deeper locations in Lake St. Clair while shallow bays located in areas such as the St. Clair River Delta were considered marginal habitat. Today only the areas that were once considered marginal habitat have a surviving population of native mussels.

The St. Clair River Delta is the largest delta system in the Great Lakes forming an international border between the United States and Canada. The St. Clair River splits into three main channels along with multiple smaller channels as it moves through the delta. On the U.S. side the delta has been intensively managed and altered with both residential and commercial use dominating most upland areas. Steel sheet pilings separate most of the interface areas between upland areas and the river. Canals have been dredged connecting once isolated bays to most channels.

In Canadian waters, WIFN has maintained most of the natural integrity of the delta. Most channels have native emergent plant species which slow the flow of water into them or act as buffers separating upland areas from the river. Numerous isolated bays having a limited access point from the river or from Lake St. Clair are still intact and have not been breached by man-made channels. Travel within the shallow water bays is restricted and is not impacted by heavy recreational boat traffic unlike most location on the U.S. side of the delta.

The differences in land use practices between the U.S. and Canadian waters of the delta may help partially explain why preliminary results indicate that native mussels are doing better in Canadian than in U.S. waters. Low boat traffic in isolated shallow bays results in less mussels being damaged by props or being dislodged. Bays that have not been breached by canals do not receive a continuous introduction of new zebra mussels, and as a result native mussels have few attached zebra mussels. In general most of the bays sampled on Walpole Island were relatively deeper than what was found on the U.S. side.

Researchers with EC and WIFN have taken some of the first steps by identifying refuge areas in Canadian waters and have been successful at moving native mussels from areas of high zebra

infestation to those locations. What has not been determined is if all life history requirements will be fulfilled with those mussels that are placed in those refuge areas. Because most native mussels have specific host fish species needed for survival of their progeny the next question that needs to be answered is if the fish community has changed or if spatially the mussels will never be in contact with their host fish. Perhaps some of the propagation techniques that were presented at this recent meeting will help achieve the goals of rehabilitating native mussel populations in the Great Lakes. If we are to maintain a population of native mussels some innovative and intensive approaches to management will have to be considered. The USFWS and its partners are planning to continue to identify other potential refuge areas in both U.S. and Canadian waters and will also continue working to identify innovative management techniques.

This joint research project provided an excellent opportunity to interact with biologists from other agencies and to explain the Service's mission and efforts to manage resources in the Great Lakes. Specifically, information was provided about the efforts of the Service and its partners to rehabilitate native mussel populations in the Great Lakes and the role that the Fishery Resources Offices and the National Fish Hatcheries have in this endeavor. This outreach event supports the "Partnerships and Accountability" and "Aquatic Species Conservation and Management" priorities of the Fisheries Program Vision for the Future.

Aquatic Habitat Conservation and Management

Thunder Bay River and Black River Habitat Restoration Projects Completed

Submitted by Heather Rawlings
Fish and Wildlife Biologist

Summer work crews on the Thunder Bay River and the Black River concluded their season on August 18, 2006. Supported by the Alpena FRO's Partners for Fish and Wildlife program, private landowners, local sporting organizations, and non-governmental organizations these work crews were able to accomplish an impressive amount of work.

The summer work crew on the Black River (Cheboygan River Watershed) accomplished placement of 145 large woody debris (LWD) structures for the purpose of fish cover and to deflect the current of the river to restore a deeper, narrower river channel. These structures were placed on 7 stretches of the Black River, which actively improved 10 river miles of the watershed. In addition to the LWD structures, the crew accomplished the removal of 25 beaver dams on 4 headwater streams, benefiting 8 miles of stream habitat. The removal was in conjunction with an active trapping program on two of the creeks. One erosion site was restored. The Black River watershed is a coldwater system, with brook trout and lake sturgeon the predominant species. The Federally Endangered Hungerford's crawling water beetle is located in both tributaries and the main branch of this river.

The Thunder Bay River work crew restored six erosion sites in Alpena and Montmorency Counties, benefiting 5 miles of river habitat. Two access stairways were built on the main branch of the river, and 2,000 shrubs were planted to stabilize the upper banks of erosion sites restored in FY '05 and '06. Projects benefited yellow perch, northern pike, and smallmouth bass located in this coolwater watershed.

Completion of aquatic habitat restoration projects contribute toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Survey on the Rifle River

Submitted by Susan Wells
Fishery Biologist

On August 15, 2006 Biologist Wells assisted SCEP enrollee Andrea Ania with stream survey work in the Rifle River Watershed. Two stream cross sections were taken for each of the eight sites. This effort is part of a larger project that will aid in determining the effects of restoration work that has and will be occurring in the Rifle River Watershed. Other factors being considered for this project include flow data, temperature data, and fishery data. Ania will be compiling the information as part of her graduate studies.

This is an example of collaboration between government and non-governmental organizations to enhance aquatic habitat which will benefit fish and wildlife resources. This project addresses the Service's Fisheries Program Vision for the Future priority of "Aquatic Habitat Conservation and Management" and "Partnerships and Accountability".

Wetland Construction Wrapping Up

Submitted by Heather Rawlings
Fish and Wildlife Biologist

The Alpena Fishery Resources Office Partners for Fish and Wildlife program is in the process of completing construction of twenty-three wetlands on thirteen private properties in seven counties in Northern Michigan. Construction began in May, and will be completed by the end of September. This construction restored or enhanced eighty-four acres of wetlands for the 2006 fiscal year. Four new excavating companies were contracted for the FY06 season, and for the most part their work has been exceptional. Fall rains, which have been plentiful to date, should fill these wetlands quickly to provide habitat for the fall bird migration.

Completion of aquatic habitat restoration projects contribute toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Partnerships and Accountability

St. Marys River Fishery Task Group Conducts Fish Community Assessment of the St. Marys River

The St. Marys River Fishery Task Group (SMRFTG) conducted a coordinated survey of the St. Marys River using variable mesh gillnets during the month of August. A total of 45 sites from the upper river to Potagannissing Bay were sampled. Information was collected on the diversity and relative abundance of all species and on the age, diet, lamprey wounding, and maturity of sport species. The survey was conducted as a partnership of SMRFTG member agencies and resource partners including the Michigan Department of Natural Resources (MDNR), Ontario Ministry of Natural Resources, Department of Fisheries and Oceans Canada, Chippewa Ottawa Resource Authority (CORA), Bay Mills Indian Community, Lake Superior State University (LSSU), and U.S. Fish and Wildlife Service (Alpena FRO).

Alpena FRO and LSSU partnered as a survey crew and conducted assessment at 6 sites in Lake Nicolet and the Munuscong Channel during the week of August 28th. Biologists Adam Kowalski and Scott Koproski coordinated preparation for the USFWS/LSSU assessment. The survey crew consisted of LSSU students Jennifer Johnson, Jason Lorenz, and Chris Wesolek and Alpena FRO Biologists Kowalski and Bowen and Biological Science Aid Kline. We are grateful

for assistance that was provided by Mark Ebener and ITFAP staff and Roger Greil of the LSSU Aquatic Research Lab.

The St. Marys River fishery assessment was initiated by the MDNR in 1975 and has been conducted approximately every 5 years. In 2002 the SMRFTG agreed to assist with the survey. Information from the 2002 survey is available on-line titled "Population Dynamics of the St. Marys River Fish Community 1975-2002" at the Great Lakes Fishery Commission's website (http://www.glfc.org/lakecom/lhc/SMR2002rpt.pdf).

This survey effort is consistent with the Service's Fisheries Program Vision for the Future priorities of "Partnerships and Accountability" and "Aquatic Species Conservation and Management".

DTE Energy Hosts Dinner Party at Purdy Fisheries

Submitted by James Boase
Fishery Biologist

Lake sturgeon research was highlighted at a dinner party sponsored by DTE Energy and hosted by Purdy Fisheries. The dinner was held on August 29th at Point Edward Ontario near the site of one of the largest lake sturgeon spawning grounds in the Great Lakes. Approximately 50 employees and their families from DTE Energy attended the dinner. Fishery Biologists James Boase from Alpena FRO and Bruce Manny from USGS Great Lakes Science Center (GLSC) were guest speakers at the dinner.

The outdoor dining area is situated near the headwaters of the St. Clair River. The dinner menu consisted of fresh walleye and perch. The Purdy facility has multiple venues for viewing live lake sturgeon including a 15,000 gallon outdoor aquarium and two large concrete raceways. Following dinner Boase and Manny shuttled guests to the large fish raceways where many lake sturgeon of varying size were housed. For most of the guests the highlight of the evening was the opportunity to see and handle the live sturgeon that were located in the large raceways.

Alpena FRO, GLSC, Michigan DNR, and DTE Energy have collaborated on a number of studies including telemetry projects in Lake St. Clair, the Detroit River and southern Lake Huron which ultimately let to the discovery of the three known lake sturgeon spawning reefs located in the

Huron Erie Corridor. In 2003, DTE Energy helped fund the construction of an artificial lake sturgeon spawning reef near Belle Isle in the Detroit River. This event at Purdy Fisheries provided an excellent opportunity for Alpena FRO to highlight the continued spirit of cooperation between the Service and its partners for lake sturgeon restoration in the Great Lakes.

This event provided an opportunity to interact with the public and to explain the Service's mission and efforts to protect and help manage Great Lakes natural resources. Specifically, information was provided about the efforts of the Service and its partners to rehabilitate native lake sturgeon populations in the Great Lakes and the role that the Fishery Resources Offices have in this endeavor. This research event supports the "Partnerships and Accountability" and "Aquatic Species Conservation and Management" priorities of the Fisheries Program Vision for the Future.

Congressman John D. Dingell Hosts News Conference to Announce New Funding for Humbug Marsh

Submitted by James Boase
Fishery Biologist

On Monday, August 14, 2006 Congressman John D. Dingell (MI-15) hosted a news conference to announce new funding for Humbug Marsh trails and a bird driving tour. Announcement of the funding took place at the Gibraltar Community Center.

Humbug Marsh is composed of a mix of approximately 300 acres of forested uplands and over 100 acres of wetlands located on the Detroit River and the hope is that once the trails are constructed and improvements are complete the area will be a major tourist destination not just for locals but for other as well. Humbug Marsh stretches for almost a mile and is considered one of the last undisturbed wetlands located on the U.S. side of the river. The marsh is located in the heart of the Detroit River International Wildlife Refuge and is considered one of the richest areas of biodiversity along the river. It provides critical habitat for many species of fish, ducks, migratory birds, mammals and other animals, as well as many valued plant species. The property is adjacent to a recently acquired 44 acre site that will become the headquarters for the Detroit River International Wildlife Refuge, which will house the offices of the U. S. Fish and Wildlife Service. Last year approximately 15,000 people visited the marsh and by 2008, when the visitor center is expected to be complete and the trails will have been constructed, the hope is that the marsh will receive over half a million visitors each year.

Approximately 50 individuals representing local governments, corporations, interest groups, citizens and the local media were present at the Center. Refuge Manager John Hartig introduced Congressman Dingell, Janae' Reneaud and James Boase from the Service were also in attendance. Announcement of the event was highlighted in The Detroit News and can be accessed at the following web link:
http://www.detnews.com/apps/pbcs.dll/article?AID=/20060814/METRO01/608140337/1006

This open house provided an excellent opportunity to interact with federal, state and local governing officials along with interest groups working in southern Michigan. This meeting at the Center provided the opportunity to explain the Service's mission and efforts to manage resources in the Great Lakes. This outreach event supports the "Partnerships and Accountability" and "Aquatic Species Conservation and Management" priorities of the Fisheries Program Vision for the Future.

Alpena FRO Accomplishment Report

August 2006

U. S. Fish and Wildlife Service, Alpena FRO
145 Water Street, Alpena, MI 49707
Phone: 989/356-5102

For more information on Alpena FRO programs and activities or to view other station reports visit our website located at http://www.fws.gov/midwest/alpena/.